I claim:

1. (Currently Amended) A method of forming an optical device for insertion into the cornea of an eye, said method including the steps of:

   a. providing a polymer film having first and second surfaces;

   b. forming tracks in said polymer film by exposing said polymer film to a first source of radiation;

   c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces;

   d. providing a first mask; and

   ~~e.forming surface relief in said polymer film by exposing, through said mask, portions of said polymer film to a second source of radiation.~~

   e. reducing the transmission of at least a first portion of said polymer film to at least certain wavelengths of light by exposing said first portion to a second source of radiation through said first mask.

2. (Previously Amended) The method of claim 1, wherein the step of forming said tracks with said first source of radiation is achieved by using a source of accelerated ions.

3. (Previously Amended) The method of claim 1, wherein the step of forming said tracks with said first source of radiation is achieved by using a source of x-rays.

4. (Previously Cancelled)

5. (Previously Cancelled)

6. (Previously Cancelled)

7. (Previously Cancelled)

8. (Currently Amended) The method of claim 45 [1], wherein said step of forming said surface relief with said third ~~second~~ source of radiation includes the step of forming ~~producing~~ within said polymer film a central disc and a concentric annulus of different thickness.

9. (Currently Amended) The method of claim 45 [1], wherein said ~~the~~ step of forming said surface relief with said third ~~second~~ source of radiation includes the step of forming ~~producing~~ surface relief within said polymer film designed to correct for refractive error in an eye.

10. (Currently Amended) The method of claim 45 [1], wherein said third ~~second~~ source of radiation is selected from the group including optical lithography sources and ion beam sources.

11. (Previously Cancelled)

12. (Previously Cancelled)

13. (Cancelled)

14. (Previously Cancelled)

15. (Currently Amended) The method of claim 8 ~~13~~, wherein said step of reducing transmission is achieved ~~accomplished~~ by the step of exposing ~~irradiating~~ said concentric ~~surrounding~~ annulus to a source of accelerated~~with~~

ions ~~from a third source of radiation~~ to form a buried partially to fully opaque layer in said concentric ~~surrounding~~ annulus.

16. (Currently Amended) The method of claim 8 ~~13~~, wherein said step of reducing transmission is achieved~~accomplished~~ by the step of forming within said concentric ~~surrounding~~ annulus a diffraction grating designed to reflect pre-selected wavelengths of light while transmitting other wavelengths.

17. (Cancelled)

18. (Previously Cancelled)

19. (Previously Cancelled)

20. (Previously Cancelled)

21. (Previously Cancelled)

22. (Previously Cancelled)

23. (Previously Cancelled)

24. (Previously Cancelled)

25. (Previously Cancelled)

26. (Previously Cancelled)

27. (Previously Cancelled)

28. (Previously Cancelled)

29. (Previously Cancelled)

30. (Previously Cancelled)

31. (Previously Cancelled)

32. (Previously Cancelled)

33. (Previously Cancelled)

34. (Currently Amended) The method of claim 45 [1], wherein said step of forming said surface relief with said third ~~second~~ source of radiation further includes the step of etching.

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Currently Amended) The method of claim 1 ~~41~~, wherein said~~the~~ step of reducing the~~said~~ transmission of said first portion with said second source of radiation is achieved by using ~~of said polymer film is accomplished by the step of irradiating said portion of said polymer film with ions from a third~~ source of accelerated ions~~radiation~~ to form a buried partially to fully opaque layer in said first portion of said polymer film.

43. (Cancelled)

44. (Cancelled)

45. (New) The method of claim 1, further including the steps of:

(a) providing a second mask; and

(b) forming surface relief in at least a second portion of said polymer film by exposing said second portion to a third source of radiation through said second mask.

46. (New) A method of forming an optical device for insertion into the cornea of an eye, said device including a central portion and a skirt portion, said method including the steps of:

a. providing a polymer film having first and second surfaces;

b. forming tracks in said polymer film by exposing said polymer film to one source of radiation;

c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces; and

d. widening by etching at least some of said pores to dimensions large enough to permit the ingrowth of corneal tissue.

47. (New) The method of claim 46, wherein said step of widening at least some of said pores to dimensions large enough to permit the ingrowth of corneal tissue is restricted to said skirt portion.

48. (New) The method of claim 46, further including the steps of:

(a) providing a mask; and

(b) forming surface relief in at least a portion of said polymer film by exposing said portion to another source of radiation through said mask.

49. (New) A method of forming an optical device for insertion into the cornea of an eye, said method including the steps of:

a. providing a polymer film having first and second surfaces;

b. forming tracks in said polymer film by exposing said polymer film to a first source of radiation;

c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces;

d. providing a first and a second mask;

e. reducing the transmission of at least a first portion of said polymer film to at least certain wavelengths of light by exposing said first portion to a second source of radiation through said first mask;

f. forming surface relief in at least a second portion of said polymer film by exposing said second portion to a third source of radiation through said second mask.

50. (New) The method of claim 49, wherein said step of reducing the transmission of said first portion with said second source of radiation is achieved by using a source of accelerated ions to form a buried partially to fully opaque layer in said first portion of said polymer film.